(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 17 February 2005 (17.02.2005)

(10) International Publication Number WO 2005/014643 A2

(51) International Patent Classification7:

C07K 14/54

(74) Agent: PARIS, Fabienne; Cabinet Plasseraud, 65/67, rue

(21) International Application Number:

PCT/EP2004/009165

(22) International Filing Date:

29 July 2004 (29.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/490,525

29 July 2003 (29.07.2003)

- (71) Applicant (for all designated States except US): INSERM (Institut National de la Santé et de la Recherche Médicale) [FR/FR]; 101, rue de Tolbiac, F-75654 Paris Cedex 13 (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PARIS, François, Emmanuel. [FR/FR]; 20, Rue Auguste Brizeux, F-44000 Nantes (FR). JACQUES, Yannick [FR/FR]; 32 bis, rue Noire, F-44000 Nantes (FR). CONTENT, Jean [BE/BE]; Avenue Simone Rhode 5, B-1640 Saint Genese (BE). WANG, Xiao-Ming [BE/BE]; Boulevard du Souverain 356/bt21, B-1160 Bruxelles (BE). HARMEGNIES, Dim-Itri [BE/BE]; 6, rue des Eperonniers, B-1000 Bruxelles (BE). GRÖTZINGER, Joachim [DE/DE]; Steenrott 20, D-21242 Altwittenbek (DE).

- de la Victoire, F-75440 Paris Cedex 09 (FR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, 7.W.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IL-11 MUTEINS

(57) Abstract: The present invention relates to new IL-11 muteins of which site I hydrophobocity has been increased. These muteins act as IL-11 agonist or hyperagonist, and are notably useful as anti-thrombocytopenia agents, and as agents improving the resistance of an organism to the deleterious in vivo effects induced by radiation or chemotherapy during the treatment of cancer or for the preparation of patient to transplantation.